

A New Fish & Game Viewing Site

Iron Gate Hatchery

Iron Gate Hatchery is the latest Fish and Game site to be added to California's network of over 200 viewing locations. Open to the public during daylight hours, Iron Gate is located on the Klamath River near the Oregon border, and offers year around wildlife viewing opportunities. A wildlife viewing highlight is the king salmon run during October and November.



belted kingfisher

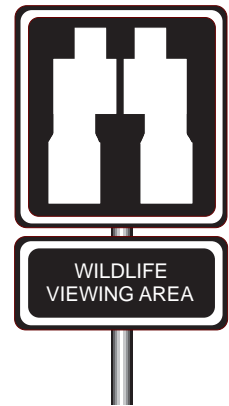
Black-crowned night-herons, common mergansers, kingfishers, and cormorants make this site a worthwhile stop off of Interstate 5 throughout the year. Ospreys, white pelicans, and wood ducks can be seen from May through September. Bufflehead and Barrow's goldeneyes can be found from October through January. If you are lucky, you may also see river otter during your visit.

During the months of October and November, wildlife watchers can view 20-30 pound king salmon as they climb the two fish ladders to the hatchery.

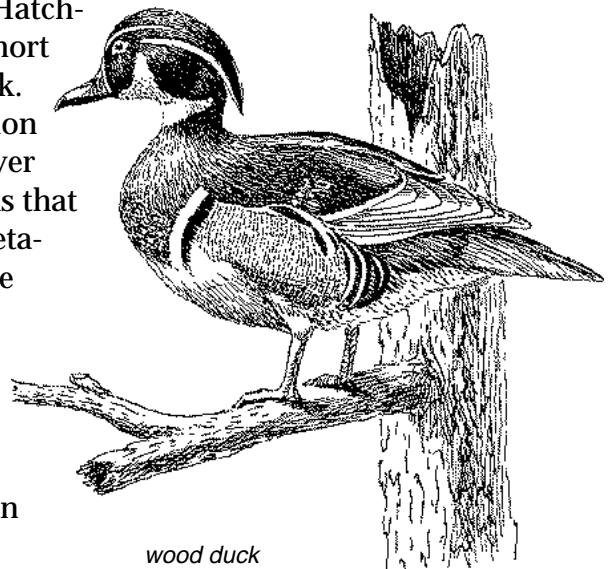
From the smaller ladder, the large fish must be trucked to the hatchery. This offers an exciting glimpse of the fish as they are scooped up and loaded into the trucks. To celebrate the salmon run, the hatchery offers an annual open house the third Saturday in October which includes educational tours and opportunities for the public to assist with the spawning. Unlike salmon hatcheries in the Central Valley, Iron Gate holds some fish for a year, allowing you to compare various age classes as you feed the fish.



While visiting Iron Gate Hatchery, be sure to walk the short trail to access Bogus Creek. The cool riparian vegetation offers a contrast to the dryer oak and juniper savannahs that make up the regional vegetation. If you visit during the fall, you may see salmon spawning naturally in the creek. Any time of year, Bogus Creek can add to your wildlife viewing experience as you visit Iron Gate Hatchery.



Iron Gate Hatchery is located 16 miles north of Yreka on Interstate 5. Take Henley/Hornbrook exit. Turn east on Copco Road and travel 8 miles to Lakeview Road. Turn on the bridge just below Iron Gate Dam and cross the river to the hatchery.



wood duck

Mt. Whitney Hatchery

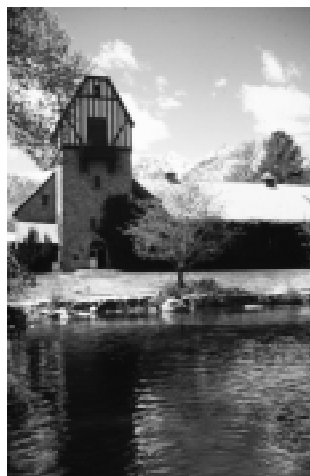
Preserving the Past for the Future



Pack trains were once used to carry young trout from the hatchery to high mountain lakes for distribution.

Tucked against the spine of the Sierra along highway 395 in Inyo County lies one of the state's oldest and most picturesque fish hatcheries. Built in 1916, the hatchery was constructed from local granite in a Swiss Chalet style of architecture. The hatchery building looks much as it did in 1916. However, the once barren grounds now support a lush canopy of trees and shrubs, adding to the beauty of the facility. From its beginning, the hatchery has produced a variety of trout species for planting throughout the eastern Sierra. Once carried in milk cans on the backs of mules, young trout are now dropped in high mountain lakes by plane or delivered by truck to hundreds of lakes, rivers and streams. The hatchery was also the first to collect and raise golden trout,

California's state fish, and has distributed golden trout eggs to hatcheries around the world.



Mt. Whitney Hatchery has fallen on hard times over the past two decades. In 1984, whirling disease struck the hatchery.

The disease is caused by a parasite which attacks the nervous system of newly hatched fish, causing them to swim in spirals before dying. The parasite now lives in Oak Creek and cannot be removed from the hatchery water supply. As a result of the disease, the hatchery can only maintain adult fish and developing fish eggs. Prior to hatching, fish eggs are transferred to nearby Black Rock Hatchery which is operated with parasite-free well water. At the same time that whirling disease reduced the value of Mt. Whitney as a hatchery, decreasing fishing license sales forced the Department of Fish and Game to cut staff and maintenance funds at Mt. Whitney and other hatcheries.

In 1995, rising maintenance costs and decreased fish production led to Departmental discussions about closing Mt. Whitney Hatchery. Strong community activism led to renewed interest by the Department and local community in protecting this historic resource. Planning is now underway to restore the buildings and grounds, and broaden the uses of the facility. The hatchery has been added to the wildlife viewing network due to its seasonal and resident bird populations, and now attracts hundreds of birders. The scenic grounds also attract dozens of love birds that get married on the site. Future plans call for nominating the hatchery for the state and national historic register, turning a portion of the historic hatchery building into a visitor center and creating a friends group to help fund and support the hatchery.



Work is now underway to restore the hatchery building. The tile roof will be rebuilt this spring. Gladding McBean, the original tile manufacturer in Lincoln, California, will reproduce broken and missing tiles using the same clay and kilns used to make the originals. Next year, the interior walls will be reinforced for earthquake safety.

Plan a trip to visit Mt. Whitney Hatchery soon. Hatcheries are fun places to watch and feed trout, but Mt. Whitney also offers spectacular vistas of the high Sierra, historic buildings and grounds, and outstanding wildlife viewing.



Backyard Conservation

Create a Butterfly Sanctuary

Wildlife watching does not have to involve extensive driving or detailed directions to reach your destination. With a little thought and planning you can bring some very delicate wildlife to your own home. Spend some time planning a host site for butterflies. As your plants bloom you will be delighted by your new wildlife watching opportunities.

There are over 750 species of butterflies in North America. Many of them are searching for a pesticide free garden to make their home. A butterfly's residence should include blooming flowers with sweet nectar, a place to take shelter from the wind and rain, puddles for drinking additional nutrients, and host plants to lay eggs and, in some cases, to overwinter. It's best to design your butterfly garden with large groups of blooming flowers instead of intermittent or thinly spread out flowers. Successive blooming is also important to provide the necessary food for the variety of visitors to your garden throughout the year.

Here are four simple steps to build your butterfly sanctuary.

1. Select a warm, sunny location that receives at least 6 hours of sunlight. Although butterflies become active when temperatures reach about 60° F, they prefer temperatures around 80° F. They depend on warmth from external sources to regulate their body temperature.

2. Choose blooming plants that offer various heights. Some easy to grow plants that attract a variety of butterflies are: Lilacs, marigolds, sweet williams and phlox for spring;

zinnias, sunflowers, butterfly bush and salvia for summer; purple cone flower, milkweed, chrysanthemum and lavender for late summer to fall. Remember to plant some host plants too. Penstemon, foxgloves, vetch, dill, and passion vine are good examples of host plants for a number of common back yard butterflies, but some butterflies need specific plants to host their eggs. Be sure to check a natural history guide on butterflies to help you identify your visiting species and what they may need as host plants.

3. Create a depression where water can puddle. Some butterfly gardeners suggest sinking a container filled

with sand so a continual puddle can be maintained for the butterflies. However you choose to create your puddle, be sure to lay thin twigs or stones next to or across the puddle to serve as perches for the butterflies.

4. Allow weeds to grow, dead leaves to gather, and any tree bark to collect in your garden. Butterflies need shelter from rain and wind. Large-leaf trees nearby the garden offer the perfect shelter. Stacking some sticks across each other also provides shelter, or create your own butterfly "hotel" to protect them from the weather.

With steps one through four complete, be prepared to enjoy the visitors to your new garden. You may see skippers, swallowtails, sulphurs, whites, blues, and monarchs. Use a binoculars to observe various butterflies feeding. Note their beautiful scales and delicate feet that can actually sense nectar. Watch their feeding habits. Set out watermelon rinds or cut pieces of non-citrus fruit to see which butterflies will investigate or drink the juices. Did you know that a skipper's tongue is longer than its wing span? Observing which plants the butterflies prefer will help you plan next year's garden. Keep notes about your garden and the occupants. You may get some new visitors every year.

Recommended butterfly natural history guides

Handbook for Butterfly Watchers
by Robert Michael Pyle
Houghton Mifflin Company
ISBN 0-395-61629-8

Common Butterflies of California
by Bob Stewart
West Coast Lady Press
ISBN 0-966-30720-8



Other Ways You Can Help



Shade Grown Coffee—It's Better for the Birds...and You

Did you know your morning cup of coffee makes a difference for wildlife? Have you ever considered that your hot coffee can contribute to habitat enrichment and species survival? Spend a moment and contemplate where your coffee comes from and how it is grown.

Coffee is the largest agricultural import into this country. It is the most valuable crop in the world. And here in the U.S., we consume one third of the world's coffee. Coffee

originated in the deep rainforests of Africa and was traditionally cultivated under canopy trees that protect it from harsh sun and pounding rains. That changed in the 1970's when high tech practices pushed coffee from the shade into the full sun in order to increase production and assist developing countries, especially in Mexico, the Caribbean, and Central and South America. These high tech farming practices promoted monocultures rather than diversity and swept away the

protective canopies which support migrating birds.

Neotropical migrants, birds that travel thousands of miles to winter in the tropics, depend on canopied forests to rest and feed. From 1978-1987, US Fish and Wildlife Service Breeding Bird Survey showed a decline in migrants ranging from ten to thirty percent over the nine year period. During this same time, coffee farms switching from traditional farming methods to "technified" coffee plantations re-

sulted in mass deforestation to support this commercial method. With the removal of the tree canopy, rainforest thundershowers washed away nutrient rich soil, and the coffee plants required more fertilizers. Insectivorous birds, which rely on canopy for cover, did not manage the insect population around the plants so pesticides were necessary. The open rows between the coffee plants hosted unwelcomed plants, requiring herbicides for weed control. The hybridized coffee plants grew quicker and produced coffee beans faster, yet demanded intensive farming practices and had to be replaced more frequently. Although other variables may have existed, you can't help but wonder if there was a correlation between the decreased migrants and the "technified" plantations.

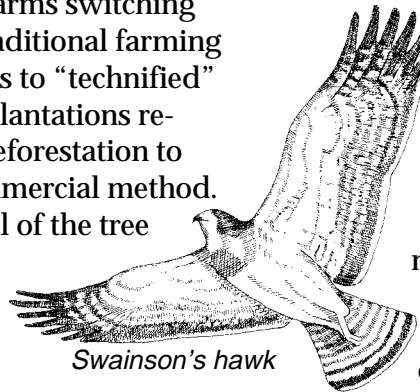
Anna's hummingbird



The canopy is the key. Studies in Colombia and Mexico revealed more than two thirds of birds are found in the canopy and less than 10% are found in the coffee bushes. 94-97% fewer bird species are found in sun grown coffee plantations. Some traditional coffee farms plant up to 40 additional species of trees to provide shade, fix the necessary nitrogen

in the soil, and provide additional sources of income. The shade trees provide a layer of much needed mulch that provides soil nutrients, reduces the need for chemical fertilizers, and reduces erosion. Considering that coffee planta-

tions cover 2.7 million hectares in Mexico, Central America, and the Caribbean (the same areas most heavily used by migratory birds), the traditional coffee plantations



Swainson's hawk

"Americans drink more coffee than any other people, 2.3 billion pounds each year. Only one-sixth of this coffee is grown organically in the shade."

Richard Fumo and Dita Smith, *The Washington Post*, August 14, 1999

"For decades, conservationists have struggled to prove to cash-strapped Latin American farmers that conserving tropical rainforests is in their best economic interests. The success of shade grown coffee is a shining example."

Scott Shalaway,
Birder's World, June 1998

play a key role in offering necessary habitat. In some locations, traditional coffee plantations are the only substitute for undisturbed forest habitat and offer a usable environment for insects, birds, mammals, and amphibians.

But what are the economics of the matter? The world market also plays a crucial role in how our produce is grown. In 1989 the International Coffee Agreement collapsed, allowing free market trading. Prices could not be maintained at a higher level, so some countries chose to modernize production, which pushed small farms out. Alas, another push for technified coffee and loss of habitat for wildlife. The benefits of shade grown coffee reach beyond simply monetary value. Shade grown plantations provide a

"If enough consumers speak up, we can make a difference...With each cup we could be toasting the warblers, toucans, and other diverse life that relies on tropical forests."

Dan Evans, past executive director of the Pt. Reyes Bird Observatory

healthier more wholesome environment for wildlife, farmers, and their families. Many of the shade grown coffee farms are family owned and operated. Many coffee distributors here in the U.S. prefer to buy the beans directly from the family operation therefore eliminating the middleman and keeping costs down. When consumer

dollars are spent on shade grown coffee, it will eventually deliver the message that a substantial market exists.

It seems so simple, doesn't it? The satisfying mug of coffee that you savor every morning can help save habitat for migrating birds. So next time you sip that warm cup of coffee on a slow mellow morning, drink it with good conscience knowing that you did your part by purchasing shade grown coffee. It's for the birds and you.

For additional information on this topic please read the February 2000 issue of *Birding* magazine from the American Birding Association.



Ways to show your support for shade grown coffee:

Currently, shade grown coffee is found primarily in specialty shops and costs a little more, but a percentage of the retail price is usually contributed to a fund targeted to support and assist shade grown coffee farmers. Ask your local grocery, coffee shop, and specialty shops to carry shade grown coffee. In the meantime, you can purchase your shade grown coffee from the following vendors:

Wild Oats	Check local listings
Wild Birds Unlimited	Check local listings
Seattle's Best Coffee	Check local listings
Thanksgiving Coffee Company	(800) 648-6491
Counter Culture Coffee	(888) 238-5282
Royal Blue Organics	(888) 223-3626
The Brown and Walker Company	(800) 769-2392
Green Mountain Coffee Roasters	(800) 223-6768





CALIFORNIA WILDLIFE CAMPAIGN



California is a land of diverse and extraordinary wildlife. More than 1,275 species of mammals, birds, reptiles, amphibians and fish live within our borders, and many are found nowhere else in the world. The California Department of Fish and Game works hard to conserve these precious natural resources by maintaining more than 200 wildlife areas and ecological reserves throughout the state. The CALIFORNIA WILDLIFE CAMPAIGN gives you the opportunity to help us in this mission, while providing you access to many fabulous wildlife viewing areas.

The CALIFORNIA WILDLIFE CAMPAIGN and the California Department of Fish and Game need your support. Please join the CALIFORNIA WILDLIFE CAMPAIGN today. Your tax deductible donation will help maintain and restore wildlife habitat, provide educational programs, and help build exhibits and trails at wildlife viewing areas.

Membership levels and benefits:

Individual (\$13) * One membership card and the *California Wildlife Campaign Newsletter*

Family (\$26) * Up to four membership cards and the *California Wildlife Campaign Newsletter*

Supporter (\$35) * Same as Family membership, **Plus** a one-year subscription to *Outdoor California*

Protector (\$50) * Same as Supporter membership, **Plus** *California's Wild Heritage* and the *California Wildlife Viewing Guide*

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